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15

16
17 UNITED STATES DISTRICT COURT
18 NORTHERN DISTRICT OF CALIFORNIA
19 SAN FRANCISCO DIVISION

20 ILLUMINA, INC.,
ILLUMINA CAMBRIDGE LTD.,

21 Plaintiffs,

22 v.

23 BGI GENOMICS CO., LTD., BGI
24 AMERICAS CORP., MGI TECH CO.,
LTD., MGI AMERICAS, INC. and
25 COMPLETE GENOMICS, INC.

26 Defendants.
27
28

Case No. 3:19-cv-03770-WHO

**DEFENDANTS' OPPOSITION TO
PLAINTIFFS' MOTION TO STRIKE
AND DISMISS DEFENDANTS'
AFFIRMATIVE DEFENSES AND
COUNTERCLAIMS**

Date: December 11, 2019
Time: 2:00pm
Location: Courtroom 2
17th Floor

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IPR2013-00517, Paper 1, Petition for <i>Inter Partes</i> Review (PTAB Aug. 19, 2013)	D.N. 54-1 (Ex. A)	N/A
IPR2013-00517, Paper 16, Institution Decision (PTAB Feb. 13, 2014)	D.N. 65-1	Appx0117-133
IPR2013-00517, Paper 32, Patent Owner's Response (PTAB May 5, 2014)	D.N. 54-2 (Ex. B)	N/A
IPR2013-00517, Paper 54, Petitioner's Reply (PTAB July 28, 2014)	D.N. 65-1	Appx0134-154
IPR2013-00517, Paper 62, Illumina's Motion to Exclude Evidence (PTAB Sept. 2, 2014)	Filed herewith	Appx0602-621
IPR2013-00517, Paper 64, Illumina's Motion for Observation on the Cross Examination Testimony of Bruce Branchaud, Ph.D. and Michael Metzker, Ph.D. (PTAB Sept. 2, 2014)	D.N. 54-3 (Ex. C); D.N. 65-1	Appx0155-173
IPR2013-00517, Paper 67, Petitioner's Response to Illumina's Motion for Observations (PTAB Sept. 15, 2014)	D.N. 65-1	Appx0174-192
IPR2013-00517, Paper 87, Final Written Decision (PTAB Feb. 11, 2015)	D.N. 54-7 (Ex. G); D.N. 65-1	Appx0193-217
IPR2013-00517, Ex. 1025, Video Deposition of Floyd Romesberg, Ph.D. (PTAB July 28, 2014)	D.N. 54-5 (Ex. E)	N/A
IPR2013-00517, Ex. 2011, Declaration of Floyd Romesberg, Ph.D. (PTAB May 5, 2014)	D.N. 54-6 (Ex. F)	N/A
IPR2013-00518, Paper 1, Petition for <i>Inter Partes</i> Review (PTAB Aug. 19, 2013)	Filed herewith	Appx0673-738
IPR2013-00518, Paper 28, Illumina's Request for Adverse Judgment (PTAB May 5, 2014)	Filed herewith	Appx0739-747
IPR2013-00518, Paper 29, Judgment (PTAB May 6, 2014)	Filed herewith	Appx0748-750
IPR2017-02172, Paper 1, Petition for <i>Inter Partes</i> Review (PTAB Oct. 5, 2017)	D.N. 65-1	Appx0218-296
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IPR2017-02172, Paper 21, Petitioner's Request for Rehearing (PTAB May 21, 2018)	D.N. 65-1	Appx0334-350

Document	D.N. (this proceeding)	Appx Range
IPR2017-02172, Paper 22, Decision Denying Request for Rehearing (PTAB Aug. 2, 2018)	D.N. 65-1	Appx0351-361
IPR2017-02172, Ex-2024, Declaration of Floyd Romesberg, Ph.D. (PTAB Jan 23, 2018)	D.N. 54-12 (Ex. L)	N/A
IPR2017-02172, Ex-2025, Curriculum Vitae of Floyd Eric Romesberg (PTAB Jan 23, 2018)	D.N. 54-13 (Ex. M)	N/A
IPR2017-02174, Paper 1, Petition for <i>Inter Partes</i> Review (PTAB Oct. 5, 2017)	D.N. 65-1	Appx0362-441
IPR2017-02174, Paper 6, Illumina's Preliminary Response (PTAB Jan. 23, 2018)	D.N. 54-11 (Ex. K); D.N. 65-1	Appx0442-512
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IPR2017-02174, Paper 21, Petitioner's Request for Rehearing (PTAB May 21, 2018)	D.N. 65-1	Appx0568-587
IPR2017-02174, Paper 22, Decision Denying Request for Rehearing (PTAB Aug. 2, 2018)	D.N. 65-1	Appx0588-601
IPR2017-02174, Ex-2024, Declaration of Floyd Romesberg, Ph.D. (PTAB Jan 23, 2018)	D.N. 54-12 (Ex. L)	N/A
IPR2017-02174, Ex-2025, Curriculum Vitae of Floyd Eric Romesberg (PTAB Jan 23, 2018)	D.N. 54-13 (Ex. M)	N/A

I. INTRODUCTION

Illumina does not identify any failure by Defendants to plead inequitable conduct with the particularity required by Fed. R. Civ. P. 9(b), *i.e.*, the who, what, when, where, why, and how. Nor does Illumina contest any statement of scientific fact or misstatement of the record by Defendants. Instead, Illumina’s motion to strike rests *entirely* on its contention that it will ultimately prevail on the merits. With respect to both intent to deceive and materiality, Illumina’s arguments rely entirely on a weighing of the evidence, which is not appropriate at the pleading stage. Moreover, Illumina improperly applies a heightened standard for “intent to deceive”—suggesting that deceptive intent must be the single most plausible inference—but that heightened standard has been rejected by this Court in assessing an inequitable conduct affirmative defense at this stage. Instead, an inference of deceptive intent need only be reasonable and drawn from a pleading’s allegations of underlying fact.

There can be no legitimate dispute that the allegations of underlying fact stated in Defendants’ Answer far surpass the requirement for a reasonable basis to infer deceptive intent. As detailed over the course of *twenty-eight pages* in Defendants’ Answer, Illumina’s counsel and expert repeatedly misrepresented the meaning and import of prior art references to the Patent Trial and Appeal Board (“PTAB”) and Federal Circuit to support its non-obviousness arguments. For purposes of this motion, Illumina has not contested any of the underlying scientific facts. Nor does Illumina contest that Defendants’ Answer accurately identifies Illumina’s statements to the PTAB and Federal Circuit. Thus, assuming the underlying facts to be true (as the Court must at the pleading stage), it is reasonable to infer that Illumina had the deceptive intent described in Defendants’ Answer because its arguments were inconsistent with the true underlying scientific, Illumina certainly knew of the underlying facts and the false and misleading nature of its arguments, and it was highly motivated to undermine Petitioners’ obviousness arguments. It is unclear what alternative inference Illumina could even ask the Court to make given that it repeatedly misrepresented the meaning and import of several references to the PTAB and Federal Circuit.

In addition to Illumina’s improper merits-based challenges, it attempts to bolster its arguments by arguing that the ’537 patent “is a strong and incredibly battle-hardened patent.” D.N. 65 at 2. But the reality is that Illumina can only make this contention because of its prior misrepresentations and

1 deceit of the PTAB and Federal Circuit. It is long-past time that Illumina’s false statements and
2 misleading arguments be exposed, and its asserted patents should be found unenforceable for this
3 misconduct, particularly as the PTAB and Federal Circuit relied on Illumina’s misrepresentations in
4 reaching their prior decisions. Thus, Defendants have properly alleged an affirmative defense of
5 inequitable conduct, which should not be stricken. Similarly, based on the same factual allegations,
6 Defendants have also properly alleged an affirmative defense of unclean hands, which has an even
7 lower pleading standard than inequitable conduct and should not be stricken.

8 Illumina also challenges the sufficiency of several of Defendants’ other Affirmative Defenses,
9 despite their sufficiency. But Illumina fails to mount a credible or particularized challenge, which
10 alone warrants denial. Illumina’s motion to dismiss Defendants’ claims of induced and willfulness
11 infringement likewise fails because Illumina ignores recent precedent from both the Federal Circuit
12 and this District establishing the sufficiency of Defendants’ pleadings.

13 **II. DEFENDANTS’ INEQUITABLE CONDUCT ARGUMENTS SHOULD NOT BE** 14 **STRICKEN**

15 **A. Illumina Fails to Contest the Underlying Facts Alleged By Defendants and Fails** 16 **to Justify Its Arguments That Were Contrary To Those Facts**

17 **i. Illumina’s Misrepresentations During the Prior Proceedings Have** 18 **Necessitated the Current Inequitable Conduct Allegations**

19 To fully appreciate the depth of Illumina’s deception and ability to thus far avoid
20 accountability for its conduct, a brief review of the prior proceedings is necessary. The ’537 patent
21 was first challenged by Qiagen in two *Inter Partes* Review (“IPR”) Petitions. D.N. 54-1, Ex. A
22 (IPR2013-00517, Paper 1); IPR2013-00518, Paper 1 (Appx0673-738).¹ One resulted in cancellation
23 of claims 7 and 11-14 in response to Illumina’s request for adverse judgment. IPR2013-00518, Paper
24 28 at 1 (Appx0740); IPR2013-00518, Paper 29 at 2 (Appx0749). The other Petition was instituted on
25 the basis of *Tsien* or *Ju* in combination with *Zavgorodny*. IPR2013-00517, Paper 16 at 5, 15
26 (Appx0117-133 at Appx0121, 131). In the Final Written Decision, the PTAB found that *Tsien* or *Ju*
27 in combination with *Zavgorodny* disclosed each element of the claims. D.N. 54-7, Ex. G at 7, 18, 21-

28 ¹ Appx0001-601 refers to D.N. 65-1; Appx0602-807 refers to the Appendix attached hereto.

22 (IPR2013-00517, Paper 87). However, based on a limited record, the PTAB found that Qiagen nevertheless failed to meet its burden to establish obviousness. *Id.*

In Illumina's Patent Owner's Response for IPR2013-00517, Illumina made several arguments as to why the prior art allegedly taught away from the use of an azidomethyl group, including the fallacious arguments that another reference, *Loubinoux*, teaches only a 60-80% *efficiency* (as opposed to *yield*), and that the azide would react with nucleophiles in the polymerase active site (a factually incorrect argument based solely on speculation in *Canard*). D.N. 54-2, Ex. B at 14-16, 23-26 (IPR2013-00517, Paper 32). In its Reply, Qiagen addressed Illumina's arguments, supported by an expert declaration and several references. IPR2013-00517, Paper 54 at 3-4, 7-8 (Appx0139-140, 143-144). Illumina then filed a Motion to Exclude this evidence, arguing that the evidence provided by Qiagen was irrelevant and did not support their arguments. IPR2013-00517, Paper 62 at 4-6, 8-11 (Appx0608-610, 612-615). In the Final Written Decision, the PTAB did not fully consider Qiagen's arguments, because it found that Qiagen's Reply exceeded the proper scope of a reply and improperly left out necessary detail found only in the expert declaration. D.N. 54-7, Ex. G at 14-16; *see also Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1366 (Fed. Cir. 2016). The PTAB dismissed the Motion to Exclude as moot because it did not rely on Qiagen's Reply or its supporting references. IPR2013-00517, Paper 87 at 23 (Appx0215).

On review, the Federal Circuit noted that while the "Board's precise legal underpinnings are difficult to discern," the prior art disclosed all the elements of the challenged claims and that the PTAB's decision was improper to the extent it was based on an absence of a reasonable expectation of success. 821 F.3d at 1365-67. However, the Federal Circuit affirmed the PTAB's judgment because "the petitioner's *sole* argument for why one of skill in the art would be motivated to combine *Zavgorodny*'s azidomethyl group with *Tsien*'s [sequencing-by-synthesis ("SBS")] method was because it would meet *Tsien*'s quantitative deblocking requirement" and the Court found that *Loubinoux* disclosed a 60-80% efficiency based on Illumina's misrepresentations of that reference. *Id.* at 1368-70. The Federal Circuit further found that the PTAB had not abused its discretion in refusing to consider the arguments and evidence raised in Qiagen's Reply, and did not consider this material in upholding the validity of the '537 patent. *Id.* at 1369-70.

1 Years after the Qiagen IPRs, Complete Genomics, Inc. (“CGI”) filed two IPR Petitions
2 challenging the validity of the ’537 patent. IPR2017-02172, Paper 1 (Appx0218-296); IPR2017-
3 02174, Paper 1 (Appx0362-441). The first Petition sought to affirmatively correct the record by
4 asserting the combination of *Tsien* and *Zavgorodny* and addressing Illumina’s misleading arguments
5 in Qiagen’s IPR. *See, e.g.*, IPR2017-02172, Paper 1 at 4, 19, 35-36, 38-40 (Appx0236, 251, 267-68,
6 270-72). The second Petition offered a new obviousness argument based on a different combination
7 of prior art (*Dower, Church, and Zavgorodny*). IPR2017-02174, Paper 1 at 25 (Appx0401). In its
8 Patent Owner Preliminary Response for both IPRs, Illumina argued that these Petitions were
9 redundant to Qiagen’s prior IPR and institution should be denied on procedural grounds. D.N. 54-10,
10 Ex. J at 21-32 (IPR2017-02172, Paper 6); IPR2017-02174, Paper 6 at 15-26 (Appx0464-475).
11 Illumina also made several material misrepresentations to the PTAB, which were discussed in
12 Defendants’ Answer (D.N. 54, ¶¶ 221-237), the falsity of which Illumina has not contested.

13 At the time of CGI’s Petitions, a Petitioner could only file a Reply to a Patent Owner’s
14 Preliminary Response with leave of the PTAB, and such filings were limited to addressing new issues
15 not addressed in the Petition. 37 C.F.R. § 42.23(b). CGI sought to file a Reply to Illumina’s
16 Preliminary Response, and the PTAB granted that request but specifically limited the scope of the
17 Reply to the procedural denial of Petitions for redundancy pursuant to 35 U.S.C. §§ 314(a) and
18 325(d). IPR2017-02172, Paper 11 at 3 (Appx0299); IPR2017-02174, Paper 11 at 3 (Appx0299).
19 Illumina repeatedly argued in its Motion to Strike that CGI’s failure to call out Illumina’s falsehoods
20 in this Reply brief undermine its inequitable conduct defense, but the PTAB’s Orders allowing these
21 Replies clearly demonstrate that CGI’s limited focus on the procedural issues in these Reply briefs
22 was due to the PTAB’s explicit instructions, and is not relevant to the merit of Defendants’ current
23 allegations of inequitable conduct. *Id.*

24 Ultimately, the PTAB declined to institute the IPR based on the ’172 Petition based on
25 procedural grounds, finding the art and arguments redundant with the Qiagen IPR. IPR2017-02172,
26 Paper 20 at 20 (Appx0332). In contrast, the PTAB declined institution of the ’174 Petition on the
27 merits because it relied on Illumina’s material misrepresentations concerning the prior art, as
28 discussed in Defendants’ Answer and detailed below. IPR2017-02174, Paper 20 at 38 (Appx0566).

1 CGI filed a Request for Rehearing, attempting to correct many of Illumina's misrepresentations.
2 IPR2017-02172, Paper 21 (Appx0334-350); IPR2017-02174, Paper 21 (Appx0568-587). However,
3 the same panel of PTAB judges denied CGI's request. IPR2017-02172, Paper 22 at 10 (Appx0360);
4 IPR2017-02174, Paper 22 at 13 (Appx0600). The PTAB's decisions have therefore foreclosed the
5 possibility of correcting Illumina's misrepresentations at the PTAB, thereby necessitating
6 Defendants' allegations of inequitable conduct and unclean hands in response to Illumina's assertion
7 of the '537 patent here.

8 **ii. Defendants' Inequitable Conduct Defense Is Properly Based On**
9 **Illumina's Misrepresentations Before the PTAB**

10 Illumina's suggestion that inequitable conduct cannot stem from a contentious proceeding is
11 incorrect. *See* D.N. 65 at 6-7. In fact, multiple cases have permitted inequitable conduct claims and
12 defenses arising from IPR proceedings, but Illumina's Motion ignores this fact. *See, e.g., Depomed,*
13 *Inc. v. Purdue Pharma L.P.*, No. 13-571 (MLC), 2017 WL 2804953, at *5-7 (D.N.J. June 28, 2017)
14 (denying motion to dismiss and strike inequitable conduct counterclaim and affirmative defense
15 based on misrepresentations during IPR); *EMC Corp. v. Zerto, Inc.*, No. 12-956-GMS, 2014 WL
16 3809365, at *2-4 (D. Del. July 31, 2014) (granting motion to amend to plead inequitable conduct
17 counterclaim premised on misrepresentations during IPR).

18 Furthermore, Illumina's argument that principles of comity, judicial economy, and common
19 sense preclude Defendants' inequitable conduct defense based on the prior IPR proceedings are
20 specious at best. *See* D.N. 65 at 7. Neither of the cases cited by Illumina have any bearing on this
21 case. *Sinesterra v. Roy* is an unpublished appeal from the Fifth Circuit regarding a collateral attack
22 on a criminal conviction (347 Fed. Appx 9, 9-10 (5th Cir. 2009)), and *Campaniello* involved a
23 request for relief from a judgment after the time limit of Rule 60(b)(3) and where fraud was not
24 pleaded with sufficient particularity. *Campaniello Imports, Ltd. v. Saporiti Italia S.p.A.*, 117 F.3d
25 655, 661-64 (2d Cir. 1997). Thus, Illumina fails to provide any relevant authority for its argument
26 that an inequitable conduct defense cannot be premised on misconduct during an IPR.

27 **iii. Illumina Does Not Dispute the Falsity of Its Prior Statements or the**
28 **Veracity of the Factual Allegations Made in Defendants' Answer**

At the outset, it is significant that Illumina does not directly contest any of the following

1 factual allegations presented in Defendants’ Answer (D.N. 54):

- 2 • Isolated pure product yield represents the *minimum* reaction efficiency (§ 223);
- 3 • Each of the references Illumina’s cited as relevant to the issue of efficiency—including
- 4 *Loubinoux*—discuss isolated pure product *yield*, not reaction *efficiency* (§§ 225-226);
- 5 • *Loubinoux* teaches that its phenol products are highly unstable and prone to decomposition,
- 6 providing a reason for the reported yield other than low reaction efficiency (§ 234);
- 7 • *Metzker*’s 3’-O-allyl group (which was shown to be incorporated) and *Zavgorodny*’s 3’-O-
- 8 azidomethyl group are similar in size, shape, and degree of flexibility (§§ 243-244);
- 9 • *Boyer* explicitly teaches that the azide of AZT “does not interfere substantially” with the
- 10 incorporation process (§ 262);
- 11 • *Boyer* does not teach that the azide of AZT causes a steric clash with the polymerase
- 12 during incorporation (§§ 263-264);
- 13 • *Stanton* does not show an example where cleavage of a DNA backbone was caused by a
- 14 nucleotide having an amine at the 3’-position (§ 276);
- 15 • *Hovenin* and *Canard* show the incorporation of nucleotides having an amine-containing
- 16 group attached to the 3’-position, with no report of DNA cleavage (§§ 278-280).

17 These factual allegations must be taken as true for purposes considering Illumina’s Motion to Strike.²
18 *See Finjan, Inc. v. Check Point Software Techs., Inc.*, No. 18-CV-02621-WHO, 2019 WL 330912, at
19 *5-6 (N.D. Cal. Jan. 25, 2019).

20 Once these factual allegations are properly credited, the following arguments offered by
21 Illumina’s Counsel and/or Dr. Romesberg are categorically false and/or misleading:

- 22 • Illumina’s assertion that *Loubinoux* discloses “60-80% removal efficiency”;
- 23 • Dr. Romesberg’s assertion in deposition that *Loubinoux*’s reference to “unstable phenols”
- 24 refers to hydrolysis of an unstable intermediate during azidomethyl deprotection (as
- 25 opposed to degradation of the final product);
- 26 • Assertions by Illumina and Dr. Romesberg that *Metzker*’s 3’-O-allyl group is “flexible and

27
28 ² Moreover, if Illumina had a single credible challenge to any of these factual allegations, it had every motivation to make such challenges in their Motion. Illumina’s failure to do so is telling.

adaptable,” while *Zavgorodny*’s 3’-O-azidomethyl group is “linear and rigid”;

- Illumina’s presentation of *Boyer* as being relevant to the incorporation process and supporting the false conclusion that a person of ordinary skill would not have expected a nucleotide with an azidomethyl protecting group to be incorporated by a polymerase;
- Illumina’s assertion that “phosphine deblocking of an azidomethyl group was expected to cleave the backbone phosphate ester linkages in DNA.”

Illumina fails to argue that any of these statements were, in fact, true.³

iv. Illumina Fails to Provide an Alternative Inference to “Deceptive Intent” that Explains Its Misrepresentations to the PTAB and Federal Circuit

Unable to challenge the falsity of its prior statements, Illumina tediously argues that this Court should not draw the reasonable inference of deceptive intent from Illumina’s repeated misrepresentations during the prior IPRs. Yet, Illumina offers no competing inference, and in any event, at this stage the Court must construe the allegations in the Answer in the light most favorable to Defendants. *See id.* Moreover, it is implausible that Illumina’s experienced and highly-educated counsel, having worked with this technology and prior art through so many different proceedings, simply made a series of mistakes concerning the underlying facts. Such an inference is even less credible given that Illumina’s numerous false statements were part of a carefully-crafted legal strategy aimed at upholding the validity of the ’537 patent. Thus, the *only* reasonable inference to be drawn from this set of uncontested facts is that Illumina purposefully made false and misleading statements to the PTAB and Federal Circuit for the purpose of deceiving these tribunals into maintaining the validity of the ’537 patent.

B. Each of Defendants’ Inequitable Conduct Arguments Are Plausible and Supported by a Substantial and Uncontroverted Factual Record

Illumina’s Motion also applies the wrong legal standard with regards to pleading an affirmative defense of inequitable conduct, attempting to hold Defendants to the heightened pleading standards set forth in *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276 (Fed. Cir. 2011).

³ To the extent that Illumina attempts to belatedly contest any of these factual assertions, this Court should refuse to consider such arguments as exceeding the proper scope of a Reply brief. *See Dytch v. Yoon*, No. 10-02915-MEJ, 2011 WL 839421, at *3 (N.D. Cal. Mar. 7, 2011) (“It is improper for a moving party to introduce new facts or different legal arguments in the reply brief than those presented in the moving papers.”) (collecting cases).

1 See D.N. 65 at, e.g., 5 (“the Federal Circuit *en banc* tightened the standard for intent and materiality
2 in *Therasense* ...”). This Court, however, has explicitly rejected the application of *Therasense* to a
3 motion to strike:

4 [C]ourts disagree on the detail required to meet the pleading requirements for the affirmative
5 defense of inequitable conduct. ***I agree with my colleagues in this district that it is***
6 ***inappropriate to impose a standard that requires more than that set forth in Exergen during***
7 ***a motion to strike an affirmative defense.***”

8 *Finjan v. Check Point*, 2019 WL 330912 at *4 (emphasis added) (citing *Finjan, Inc. v. Juniper*
9 *Network, Inc.*, No. 1705659-WHA, 2018 WL 5454318, at *2 (N.D. Cal. Oct. 29, 2018) (“***At the***
10 ***pleading stage, however, inference of deceptive intent need only be reasonable and drawn from a***
11 ***pleading’s allegations of underlying fact to satisfy Rule 9(b).***”) (emphasis added; internal quotation
12 marks omitted)); *iLife Techs. Inc. v. AliphCom*, No. 14-CV-03345-WHO, 2015 WL 890347, at *4
13 (N.D. Cal. Feb. 19, 2015) (applying *Exergen* standard and not *Therasense* standard); *Nalco Co. v.*
14 *Turner Designs, Inc.*, No. 13-CV-02727 NC, 2014 WL 645365, at *3 (N.D. Cal. Feb. 19, 2014)
15 (same)). Under the *Exergen* standard, “[a]t the pleading stage, however, inference of deceptive intent
16 need only be ‘reasonable and drawn from a pleading’s allegations of underlying fact to satisfy Rule
17 9(b).’” *Finjan v. Juniper*, 2018 WL 5454318, at *2 n.2 (citing *Exergen Corp. v. Wal-Mart Stores,*
18 *Inc.*, 575 F.3d 1312, 1329 n.5 (Fed. Cir. 2009)). Illumina’s attempts to hold Defendants to a
19 heightened pleading standard should be rejected. As explained below, materiality and the inference
20 of Illumina’s deceptive intent are more than “reasonable” from Defendants’ allegations. See
21 *Hoffmann-La Roche, Inc. v. Promega Corp.*, 323 F.3d 1354, 1368-72 (Fed. Cir. 2003) (upholding
22 finding of materiality for inequitable conduct based on mischaracterizations of the prior art).

23 **i. Defendants Sufficiently Pleaded that Illumina Misrepresented the “Yield”**
24 **in *Loubinoux* as “Efficiency”**

25 Setting aside the fact that Illumina applies the wrong legal standard, each of Illumina’s
26 arguments regarding *Loubinoux* attempt to divert the Court’s attention from the fact that Illumina has
27 not challenged any of the scientific facts asserted by Defendants regarding this issue, nor has Illumina
28 denied that the PTAB and Federal Circuit’s decisions relied on its misleading and factually erroneous
statements in reaching their decisions. Instead, Illumina’s motion challenges “intent to deceive” and
“materiality” based on two fundamentally flawed arguments: (1) the PTAB and Federal Circuit are

1 too sophisticated to have been deceived; and (2) Illumina’s lawyers are too sophisticated to have
2 thought they could get away with it. Illumina attempts to support these arguments with eleven points
3 that read like a “how to” in logical fallacies. Illumina has not only failed to undermine Defendants’
4 showing that an “intent to deceive” is a reasonable inference (as required by *Exergen*)—but has also
5 done nothing to undermine Defendants’ showing that an intent to deceive is the only reasonable
6 inference (as suggested by *Therasense*). The frailty of Illumina’s arguments further demonstrates just
7 how motivated Illumina is to maintain the pretense of having a “battle-hardened patent,” even though
8 its prior successes were made possible only by its misleading, deceitful conduct.

9 First, Illumina attempts to appeal to the Court’s emotions—how could so many judges have
10 been misled? How could Illumina’s attorneys believe they could defraud such a sophisticated set of
11 judges? Defendants have wondered the same thing; but it does not change the fact that Illumina used
12 *Loubinoux*’s disclosure of low post-purification product *yields* to undermine Qiagen’s argument that
13 azidomethyl could be efficiently deprotected even though *Loubinoux* teaches nothing about
14 deprotection *efficiency*.

15 Second, Illumina raises the red herring that in one of Illumina’s expert’s declarations, Dr.
16 Romesberg acknowledged that *Loubinoux* taught a 60-80% yield, which according to Illumina shows
17 that it could not possibly have been attempting to deceive the PTAB. Yet, while Dr. Romesberg
18 quoted the passage of *Loubinoux* regarding yield (D.N. 54-6, Ex. F at 20 (¶ 44)), he then went on to
19 conflate *yield* with *efficiency* to undermine Qiagen’s obviousness argument: “In view of the above
20 [regarding *Loubinoux*], one of ordinary skill in the art would have expected that *Zavgorodny*’s
21 azidomethyl removal conditions (triphenylphosphine and aqueous pyridine) **would not provide more**
22 **than 60-80% removal of the azidomethyl group, an efficiency that would not have been expected to**
23 **meet the requirements of Ju’s and Tsien’s DNA sequencing methods.”** *Id.* (emphasis added).
24 Illumina then further conflated *efficiency* and *yield* in its Patent Owner’s Response: “*Loubinoux*
25 reports 60-80% removal **efficiency** for phenolic azidomethyl groups using triphenylphosphine in
26 tetrahydrofuran and water at 25°C.” D.N. 54-2, Ex. B at 24.

27 Illumina then took its misrepresentation one giant step further:

28 A person of ordinary skill in the art would have expected *Zavgorodny*’s aliphatic azidomethyl
ether to be removed with lower efficiency than the highly variable 60-80% efficiency for

1 *Loubinoux*'s aromatic azidomethyl ethers because phenolic ethers are generally "more easily
2 cleaved than the analogous ethers of simple alcohols."

3 *Id.* at 24-25. Illumina made this argument despite knowing full-well that (1) *Loubinoux* has
4 absolutely nothing to do with removal *efficiency*, and (2) the low yields reported in *Loubinoux* were
5 to be expected due to the loss of product during the purification processes and the products' highly
6 unstable nature. *See* D.N. 54 at ¶¶ 221-230. The PTAB relied on Illumina's deceitful arguments in
7 maintaining the validity of the '537 patent in its Final Written Decision. D.N. 54-7, Ex. G at 14 ("As
8 discussed above, moreover, the prior art [*Loubinoux*] suggests that an ordinary artisan would not have
9 expected *Zavgorodny*'s azidomethyl group to be removed quantitatively, as *Tsien* requires. We,
10 therefore, agree with Patent Owner that Petitioner has not shown that an ordinary artisan would have
11 considered it obvious to use *Zavgorodny*'s azidomethyl protecting group in *Tsien*'s sequencing
12 methods.").

13 Third, Illumina argues that "Illumina's expert freely testified at deposition that *Loubinoux*
14 taught a 60-80% yield," which is allegedly inconsistent with an attempt to deceive the PTAB.
15 Illumina further argues that Dr. Romesberg's admission that *Loubinoux* taught a "60-80% yield"
16 "***renders other statements immaterial.***" D.N. 65 at 9. Illumina cites no precedent for this position
17 and there is simply no basis for the proposition that one truthful admission by a party's expert can
18 eliminate the taint resulting from the party and its expert's concerted efforts to misrepresent the facts
19 and deceive the fact-finder. In fact, Dr. Romesberg only admitted that *Loubinoux* refers to "yield"
20 not "efficiency" after being cross-examined on the subject. When asked, "Now, you say in that
21 statement, '60 to 80 percent removal.' *Loubinoux* is not actually measuring removal; is that
22 correct?"; Dr. Romesberg replied, "I think he is." D.N. 54-5, Ex. E at 123-124. It was only after
23 being directed by Qiagen's counsel to the particular portions of *Loubinoux* where it is unmistakably
24 clear that the reported results refer to the pure product yield remaining after purification of unstable
25 products that Dr. Romesberg admitted there was a meaningful difference between efficiency and
26 yield. *Id.* at 123-126.

27 Illumina further argues that Romesberg's admission "shows that the Qiagen attorneys covered
28 the 'yield' versus 'efficiency' issue and had this testimony to enter into the record to the extent that it

1 was relevant.” D.N. 65 at 9. Indeed, Qiagen cited Dr. Romesberg’s admission in its Reply
2 (IPR2013-00517, Paper 54 at 7 (Appx0143)) and supplemental declarations (Exs. 1031 & 1046), but
3 the PTAB *refused to consider them* because they allegedly raised new arguments (in addition to
4 those that were not new) and the PTAB refused to parse the old from the new. Final Written
5 Decision, D.N. 54-7, Ex. G at 14. Thus, the PTAB ultimately relied on Illumina’s
6 misrepresentations: “Patent Owner argues, prior art of record, including the *Loubinoux* reference,
7 demonstrates that an ordinary artisan would have expected *Zavgorodny*’s azidomethyl group *to be*
8 *removed at a much lower efficiency* than required by *Tsien*’s methods.” D.N. 54-7, Ex. G at 8
9 (emphasis added). Given the clear connection between Illumina’s misrepresentations and the
10 PTAB’s reliance on them, Dr. Romesberg’s admission does nothing to undermine the clear inference
11 of an intent to deceive.

12 Fourth, Illumina argues that statements in Dr. Romesberg’s declaration concerning “yield” in
13 a series of other references undermine the Defendants’ showing of materiality and intent. This is a
14 strawman because the issue with Dr. Romesberg’s declaration is not that he misquotes the cited
15 references, it is that it misleadingly conflates the concepts of *yield* and *efficiency* and then uses
16 evidence in references about *yield* to draw scientifically unsupported conclusions about *efficiency*.
17 Indeed, given that Dr. Romesberg admitted that Illumina’s attorneys wrote his declaration (D.N. 54-5
18 at 14:6-10), the only way to reconcile Dr. Romesberg’s occasional correct statements with Illumina’s
19 arguments in its Patent Owner’s Response is that Illumina’s attorneys must have understood the
20 difference between these concepts and intentionally drafted the Patent Owner’s Response and
21 Romesberg’s declaration to conflate these issues and mislead the PTAB.

22 As a last attempt to argue that Dr. Romesberg’s quotation of certain references undermines
23 Defendants’ defense of inequitable conduct, Illumina makes the truly incredible argument that “the
24 alleged arguments of counsel are not material because the judges were directed to the ‘yield’
25 disclosures and had the full reference before them to independently evaluate.” D.N. 65 at 9. In other
26 words, Illumina argues that its attorneys’ deceptive statements should be disregarded because the
27 PTAB could have figured out the true facts for itself. This approach clearly not consistent with the
28

1 duty of candor and good faith, nor is it an excuse for what otherwise amounts to a clear case of
2 inequitable conduct.

3 Fifth, Illumina argues that the PTAB and Federal Circuit’s accurate quotations of *Loubinoux*
4 as reporting “yield” demonstrate a lack of deceptive intent. D.N. 65 at 10. To the contrary, this fact
5 shows just how successful Illumina was at deceptively conflating the issues of efficiency and yield.
6 As described in Paragraph 233 of Defendants’ Answer, the Federal Circuit’s decision makes clear
7 that—in accord with Illumina’s deceptive arguments—it did not appreciate the distinction between
8 yield and efficiency, as shown in its statements that: (1) “*Loubinoux*, which teaches that azidomethyl
9 methyl groups are removed from phenols with modest **efficiency** (60-80% yield)” (*id.* at 1368
10 (emphasis added)); (2) “*Loubinoux* reports a 60-80% removal **efficiency** for azidomethyl groups from
11 phenols using triphenylphosphine. 60-80% removal is not quantitative removal within the meaning
12 of *Tsien* and *Ju*” (*id.* at 1365 (emphasis added)); and (3) “azidomethyl would have been expected to
13 perform inefficiently” in the context of SBS. *Id.* at 1369. Thus, the fact that the PTAB and Federal
14 Circuit sometimes refer to “yield” and sometimes refer to “efficiency” only further shows their
15 reliance on Illumina’s deceptive arguments conflating these concepts and the materiality of those
16 arguments to the PTAB and Federal Circuit’s decisions.

17 Sixth, Illumina argues that Qiagen identified the fallacy of Illumina’s arguments to both the
18 PTAB and Federal Circuit, but that the “judges rejected the position that Defendants now propose.”
19 *See* D.N. 65 at 10. But Illumina fails to acknowledge how it came to be that Qiagen’s arguments
20 were not successful. As noted above, the PTAB found that it need not consider Qiagen’s Reply brief
21 and supporting declarations because they exceeded the proper scope of reply. D.N. 54-7, Ex. G at 14-
22 16. The Federal Circuit affirmed the PTAB’s decision not to consider Qiagen’s Reply brief and
23 supporting declarations, such that the **Federal Circuit took no position** on Qiagen’s evidence and
24 argument regarding the distinction between yield and efficiency. 821 F.3d at 1370. Thus, Illumina’s
25 argument that the Federal Circuit “judges rejected the position that Defendants now propose” is false.

26 Turning to the IPRs filed by CGI, Illumina’s seventh argument is that the PTAB had the
27 opportunity to hear Defendants’ positions. D.N. 65 at 10. But despite CGI’s attempt to correct the
28 misconceptions from the prior IPRs, the PTAB exercised its discretion not to reconsider them for

1 procedural reasons (IPR2017-002172, Paper 20 at 20 (Appx0332)), or continued to rely on Illumina's
2 arguments that conflated pure product yield and reaction efficiency. IPR2017-02174, Paper 20 at 36-
3 37 (Appx0564-565) (improperly using relative difference in percent pure product yields to infer
4 relative reaction efficiencies, when in fact those differences were due to differences in the ease of
5 purification).

6 Eighth, Illumina suggests that CGI should have raised the efficiency/yield issue in its Replies
7 to the Patent Owner's Preliminary Responses. However, as Illumina knows, at the time of these
8 filings, a Reply to a Patent Owner's Preliminary Response was not permitted without leave of the
9 PTAB, and was then only permitted to address new arguments raised by the Patent Owner. Indeed,
10 CGI was only granted leave to address the redundancy issues raised by Illumina, such that it would
11 have been inappropriate for CGI to address the efficiency/yield issue. Moreover, Illumina's
12 suggestion that filing a sanctions motion before the PTAB should be a prerequisite to alleging a
13 defense of inequitable conduct is nonsensical—there is no such requirement, and Illumina has
14 provided no basis to suggest there should be one.

15 Ninth, the fact that the PTAB rejected CGI's motion for reconsideration does nothing to
16 undermine Defendants' showing of inequitable conduct. If anything, given the uncontested facts, the
17 decision again confirms that the PTAB was in fact deceived by Illumina's conflation of yield and
18 efficiency and its misleading arguments regarding the alleged relevance of *Loubinoux* and other
19 references to *Tsien*'s quantitative deblocking requirement.

20 Tenth, Illumina argues that "Defendants are wrong on the merits because a yield of 60-80%
21 implies an efficiency well below the benchmark quantitative efficiency of greater than 99%."
22 Illumina offers no evidence for this proposition and it is inconsistent with Illumina's expert's
23 admissions that difficulty of purification could lead to yields that are significantly lower than the
24 actual reaction efficiency (D.N. 54-5, Ex. E at 126:11-22), which is significant given that *Loubinoux*
25 describes the reported products as unstable and difficult to purify. Illumina argues that it was
26 Defendants' burden to "show that the shortcomings in yield were from something other than
27 inefficiencies in the chemical reaction," but this argument fails to account for the fact that the alleged
28 "shortcomings in yield" in *Loubinoux* are ***entirely irrelevant*** to the deprotection efficiency of an

1 azidomethyl protecting group from the 3'-O of a nucleotide.

2 Similarly, Illumina's asserts as its eleventh point that its misrepresentations were immaterial
3 because the PTAB "faulted Defendants for 'choosing a protecting group [i.e., azidomethyl] that
4 *carried expected inefficiencies* (and other problems) and from seeking to work around such
5 downsides rather than using protecting groups (e.g., 3'-O-allyl) known to be suitable for DNA
6 labeling and sequencing methods.'" D.N. 65 at 12 (quoting Appx0599-600). But this argument only
7 further demonstrates the materiality of Illumina's misleading assertions regarding efficiency (and
8 other issues discussed below) in upholding the validity of the '537 patent. This is particularly true
9 given that CGI's expert had explained why, at the time of the invention, deprotection of azidomethyl
10 would have been expected to be quantitative. *See, e.g.*, IPR2017-02172, Paper 1 at 22, 46-49
11 (Appx0254, 278-281).

12 **ii. Defendants Sufficiently Pleaded that Illumina Misrepresented the**
13 **"Rigidity" of an Azidomethyl Protecting Group**

14 Illumina argues that CGI's allegation that Illumina's attorneys intentionally misrepresented
15 the rigidity and bulk of the azidomethyl group is "implausible" for four reasons, none of which are
16 convincing and many of which are irrelevant.

17 First, Illumina argues that this Court should not draw an inference of deceptive intent with
18 respect to Illumina's false statements concerning the relative "rigidity" of the 3'-O-azidomethyl and
19 the "flexibility and adaptability" of the 3'-O-allyl group. For all of Illumina's hyperbole on this issue,
20 Illumina does not even attempt to dispute the underlying factual foundation laid out in Defendants'
21 Answer (D.N. 54, ¶¶ 238-254). Thus, taking these uncontested factual assertions as true (which they
22 are), the 3'-O-allyl group of *Metzker* and the 3'-O-azidomethyl group of *Zavgorodny* are extremely
23 similar in size, shape, and degree of flexibility. These undisputed facts are squarely at odds with
24 Illumina's incorrect and misleading characterization of *Metzker*'s 3'-O-allyl as "flexible and
25 adaptable" and *Zavgorodny*'s 3'-O-azidomethyl group as "linear and rigid."

26 Unable to contest the falsity of this assertion, Illumina instead argues that CGI's "inference
27 that Illumina's attorneys would make manifestly false arguments to try to defraud a sophisticated set
28 of technically educated judges is dubious," because both the PTAB judges and CGI's counsel

1 possessed technical backgrounds. D.N. 65 at 13. In essence, Illumina argues that this Court should
2 not draw the single reasonable inference of deceptive intent, because Illumina's actions were so
3 egregious and brazen. Yet, as discussed above, Illumina does not offer a single competing inference
4 to be drawn from the repeated misrepresentations made by its counsel and expert throughout the prior
5 proceedings. This is because there is only one plausible inference to be drawn from the
6 uncontroverted factual record: Illumina's counsel and expert misrepresented the facts to several
7 tribunals for the specific purpose of deceiving them into upholding the validity of the '537 patent.

8 Illumina's second and third arguments are meritless. As discussed above, CGI did not address
9 the falsity of Illumina's claims in its Reply brief because, at the order of PTAB, the Reply brief was
10 limited to addressing procedural issues. *See* 37 C.F.R. § 42.23(b). Moreover, this argument misses
11 the point because CGI's statements and actions are irrelevant to the issue of whether Illumina
12 purposely made false and misleading statements with the intent to deceive the PTAB. Illumina's
13 third argument fails because it amounts to no more than arguing that deception is implausible,
14 because Illumina succeeded in deceiving the PTAB. A successful deception is deception nonetheless.

15 Finally, Illumina argues that its misrepresentations about the relative "rigidity" of 3'-O-
16 azidomethyl compared to 3'-O-allyl do not amount to inequitable conduct because "there were other
17 independent grounds" that allegedly taught away from using azidomethyl, including the allegedly
18 "DNA-harmful conditions" used for azidomethyl deprotection. D.N. 65 at 15 (citing IPR2017-02174,
19 Paper 22, at 11 (Appx0598) (noting "other discouraging factors with the use of an azidomethyl group
20 (e.g., DNA-harmful conditions, low yields)"). Illumina's argument fails, however, because the
21 materiality of Illumina's misrepresentations should not be viewed in isolation, but rather as a whole.

22 For example, the "other discouraging factors" relied on by the PTAB were predicated on
23 Illumina's misleading presentation of the prior art. For example, the PTAB's finding of "DNA-
24 harmful conditions" was based at least in part on Illumina's misleading argument that "phosphine
25 deblocking of an azidomethyl group was expected to cleave the backbone phosphate ester linkages in
26 DNA" (*see infra*, Section II.B.iv, regarding *Stanton*). D.N. 54-11, Ex. K at 43 (IPR2017-02174).
27 Similarly, the PTAB's finding of "low yields" as the other exemplary "discouraging factor" was
28 based at least in part on Illumina's misrepresentations conflating reaction "efficiency," relevant to

1 SBS, with “yield” disclosed in *Loubinoux* and other prior art (*see supra*, Section II.B.i). Thus, while
2 Illumina’s false statements about the “rigidity” of the azidomethyl group might not have been
3 dispositive in the PTAB’s decision, the combined weight of Illumina’s misrepresentations was
4 material to the PTAB’s decision. Furthermore, the **totality** of Illumina’s systematic
5 misrepresentations throughout the prior proceedings **have** been material to the PTAB’s history
6 upholding the validity of the ’537 patent. Illumina’s Motion to Strike fails to refute this assertion.

7 **iii. Defendants Sufficiently Pleaded that Illumina Misrepresented the**
8 **Significance of *Boyer***

9 With respect to *Boyer*, Illumina’s tediously repeats three of the same arguments discussed
10 above (*i.e.*, that the PTAB had the *Boyer* reference to evaluate for itself, and that Defendants filed a
11 Reply brief (limited to procedural issues) and a Request for Reconsideration. D.N. 65 at 15-16. As
12 discussed above, these arguments are unconvincing and irrelevant. The inference of deceptive intent
13 based on Illumina’s repeated false assertions to various tribunals is not undermined by the brazen
14 manner in which these misrepresentations were made. Nor is this inference undermined by the fact
15 that Illumina’s deceptive scheme has been successful to this point. Moreover, Defendants’ actions in
16 the prior IPRs are irrelevant to the issue of inequitable conduct. In contrast, Illumina’s misleading
17 and false statements are singularly relevant to inequitable conduct, and the facts and inferences
18 pleaded by Defendants provide more than a sufficient basis for their inequitable conduct allegations.

19 Tellingly, Illumina does not contest the teachings of *Boyer* as laid out in Defendants’ Answer.
20 Illumina does not challenge that *Boyer* teaches that the azide of AZT “does not interfere
21 substantially” with the incorporation process, and that *Boyer* itself demonstrates successful
22 incorporation of AZT. Illumina does not contest that *Boyer*’s discussion of a steric clash between the
23 azide of AZT and the polymerase enzyme refers to nucleotide excision after incorporation, and is
24 wholly irrelevant to the process of incorporation. At the very least, these underlying factual
25 allegations must be taken as true for the purposes of the present motion.

26 Accordingly, Illumina’s presentation of *Boyer* to the PTAB was highly misleading. Illumina
27 presented *Boyer* as being relevant to the process of incorporation and suggesting that nucleotides
28 having 3’-groups larger than an azide would not be incorporated. Illumina argued, based on *Boyer*,

1 that “AZT incorporation essentially overstuffs the polymerase active site[.]” *Id.* at 36. Illumina
2 discussed *Boyer* in a section entitled “There was no motivation to use an azidomethyl group in
3 *Dower*’s sequencing methods because there was no expectation of efficient and accurate polymerase
4 incorporation,” thereby falsely suggesting that *Boyer*’s teachings were relevant to incorporation.
5 D.N. 54-11, Ex. K at 30, 36-37 (IPR2017-02174). Illumina cemented this false presentation of *Boyer*
6 by arguing that “adding a single oxygen atom to the sugar can be the difference between
7 incorporation and non-incorporation” directly after discussing *Boyer* and using these points to support
8 the dubious conclusion that a person of ordinary skill in the art would not have expected the claimed
9 3’-O-azidomethyl nucleotides to be incorporated by a polymerase into a nucleic acid. *Id.* at 37. In
10 view of the uncontested factual record, Illumina’s presentation of *Boyer* was plainly misleading.

11 Unable to contest the falsity of its prior statements, Illumina resorts to accusing CGI of
12 misrepresenting Illumina’s prior arguments. Illumina accuses CGI of offering a “characterization of
13 Illumina’s arguments [that] do[es] not square with those arguments as they were actually made.”
14 D.N. 65 at 16. In particular, Illumina asserts that its argument “*never mentions extra atoms*[.]” *Id.*
15 (emphasis added). Yet, the following passage is directly quoted from Illumina’s Patent Owner’s
16 Preliminary Response in IPR2017-02174: “BGI does not explain where within the active site *the*
17 *extra oxygen atom, carbon atom, and two hydrogen atoms* would be expected to fit.” D.N. 54-11,
18 Ex. K at 37 (emphasis added). Thus, Illumina’s arguments to this Court continue its long-standing
19 pattern of misrepresentations and cannot be taken at face value.

20 **iv. Defendants Sufficiently Pleaded that Illumina Misrepresented the**
21 **Significance of *Stanton***

22 Illumina offers seven arguments as to why its mischaracterization of *Stanton*’s teachings does
23 not amount to inequitable conduct. Once again, Illumina does not contest the underlying facts laid
24 out in CGI’s inequitable conduct allegation. Thus, it is uncontested at this stage that *Stanton* does *not*
25 teach that an amine at the 3’-position of a nucleotide can cleave the DNA backbone. It is also
26 uncontested at this stage that the prior art (including *Hovenin* and *Canard*) provides several examples
27 of nucleotides having amines attached to the 3’-position that are incorporated by polymerases and do
28 not lead to cleavage of the DNA backbone. These uncontested facts are directly at odds with

1 Illumina’s false assertion that, based on the teaching in the prior art (including *Stanton*), “phosphine
2 deblocking of an azidomethyl group was expected to cleave the backbone phosphate ester linkages in
3 DNA.” D.N. 54-11, Ex. K at 43. These facts also contravene Illumina’s unqualified assertion that
4 “nucleotides having amino groups were taught as undergoing an intramolecular reaction that
5 spontaneously attacks and cleaves the phosphate ester backbone of DNA.” *Id.* at 42.

6 Illumina’s first two arguments are duplicative of those arguments discussed above and are still
7 unconvincing. Illumina strains credulity by arguing that this Court should not draw the only
8 reasonable inference of deceptive intent simply because Illumina’s campaign of misinformation was
9 so audacious. In fact, the brazen nature of Illumina’s repeated misrepresentations strengthens the
10 inference of deceptive intent—especially where Illumina has not even offered a competing inference.
11 Moreover, CGI’s prior actions are irrelevant to the current allegations of inequitable conduct, which
12 are based on Illumina’s litany of false assertions, the falsity of which is thus far uncontested.

13 Illumina’s third argument does not dispute that *Hovenin* and *Canard* disclose nucleotides
14 having amine-containing groups at the 3’-position and their successful incorporation, with no
15 cleavage of the DNA backbone. Illumina also does not challenge CGI’s assertion that the teachings
16 of *Hovenin* and *Canard* establish the fallacious nature of Illumina’s representation of *Stanton*.
17 Instead, Illumina argues that the factual inconsistencies in their own arguments undermine the
18 inference of deceptive intent. This is nonsense. Illumina offered *Hovenin* and *Canard* as the basis
19 for different teaching-away arguments (including Illumina’s dubious and unsupported “electrophilic
20 azide” argument, discussed in Defendants’ Answer (*see* D.N. 54, ¶ 268 n.13)). It is at the very least
21 plausible that Illumina’s counsel knowingly provided these documents because they determined that
22 the potential benefits of doing so (including rehashing the debunked “electrophilic azide” argument)
23 outweighed the risk of undermining their misrepresentation of *Stanton*.

24 Like Illumina’s second argument, Illumina’s fourth argument fails because it focuses on
25 CGI’s actions in the prior IPRs, which are irrelevant to *Illumina’s* inequitable conduct. Illumina’s
26 misdirection is understandable, particularly where Illumina cannot even dispute the falsity of its prior
27 arguments. In any event, the fact that CGI did not squarely address Illumina’s prior fallacious
28 presentation of *Stanton* in its Petition does not undercut an inference of deceptive intent. Given

1 Illumina's wide-ranging misrepresentations throughout the prior proceedings, it should not be
2 surprising that CGI was unable to fully address each of these falsehoods and still have space in its
3 brief to make its affirmative case. One need only look to the twenty-eight pages in Defendants'
4 Answer that were used to explain and expose Illumina's deceptions to understand this.

5 As for Illumina's fifth and sixth arguments, Illumina again argues that there was no
6 inequitable conduct because Illumina's misrepresentation was ultimately successful in deceiving the
7 PTAB. There is simply no logic to this argument. A successful deception is deception nonetheless.

8 Only in its seventh argument does Illumina provide any explanation for the inconsistency
9 between the scientific facts and its deceptive arguments. Unable to argue that its representation of
10 *Stanton* was actually true, Illumina attempts to rewrite its argument and clarify that it did not actually
11 mean to argue "that one would read *Stanton* and absolutely believe that the invention would not
12 work." D.N. 65 at 19. Yet, this revisionist history is inconsistent with Illumina's unqualified
13 assertions that "phosphine deblocking of an azidomethyl group was expected to cleave the backbone
14 phosphate ester linkages in DNA" and that "nucleotides having amino groups were taught as
15 undergoing an intramolecular reaction that spontaneously attacks and cleaves the phosphate ester
16 backbone of DNA." D.N. 54-11, Ex. K at 42-43; *see also* D.N. 54-10, Ex. J at 47-48. Now that
17 Illumina has reaped the benefit of its deceptive statements, it should not be able to avoid the
18 consequences by back-peddling and retroactively softening its stance.

19 Finally, with respect to materiality, Defendants' Answer alleges that the combined series of
20 Illumina's misrepresentations in the prior IPR were material to the PTAB's decision. It is
21 disingenuous for Illumina to isolate each of its false statements and argue that, in a vacuum, these
22 isolated statements were not material. Illumina's fallacious arguments were not made in a vacuum.
23 They were strategically woven together for the express purpose of deceiving the PTAB into
24 upholding the validity of the '537 patent, and the PTAB relied on *all* of Illumina's misrepresentations
25 in their denial of institution and refusal to reconsider that denial.

26 **III. DEFENDANTS' AFFIRMATIVE DEFENSES ARE ADEQUATELY PLEADED**

27 Illumina moves to strike Defendants' Third (Prosecution Laches), Fourth (Prosecution History
28 Estoppel), Sixth (Statute of Limitations), Seventh (35 U.S.C. § 287), Ninth (No Enhanced Damages),

1 Tenth (No Exceptional Case) and Eleventh (Unclean Hands) Affirmative Defenses even though “such
2 motions are generally disfavored because the motions may be used as delaying tactics and because of
3 the strong policy favoring resolution on the merits.” *Barnes v. AT&T Pension Ben. Plan-
4 Nonbargained Program*, 718 F. Supp. 2d 1167, 1170 (N.D. Cal. 2010) (citation omitted). “Such
5 motions should only be granted if ‘the matter has no logical connection to the controversy at issue
6 and may prejudice one or more of the parties to the suit.’” *Finjan v. Check Point*, 2019 WL 330912
7 at *2 (citation omitted)). In other words, motions to strike “should not be granted unless it is clear
8 that the matter to be stricken could have ***no possible bearing*** on the subject matter of the litigation.”
9 *Oracle Am., Inc. v. Micon Tech., Inc.*, 817 F. Supp. 2d 1128, 1131-32 (N.D. Cal. 2011) (emphasis
10 added). Here, Illumina’s motion to strike must fail because it cannot say that the challenged
11 affirmative defenses have no logical connection to the controversy at issue or that it would be
12 prejudiced if the defenses are maintained.

13 **A. Illumina Fails to Meet Its Burden for Moving to Strike Defendants’ Affirmative**
14 **Defenses**

15 As an initial matter, Illumina has not met its burden in challenging these defenses because
16 “[i]t is insufficient to simply argue that the defenses collectively are not pled in accordance with
17 Twombly/Iqbal,” as Illumina has done here (*see* D.N. 65 at 19). *Perez v. Wells Fargo & Co.*, No. 14-
18 cv-0989-PJH, 2015 WL 5567746, at *4 (N.D. Cal. Sept. 21, 2015). Illumina fails to discuss each
19 defense separately or list the elements that are allegedly missing from the affirmative defenses—
20 mistakes that are fatal to Illumina’s challenge and cannot be belatedly corrected on Reply. *Id.*; *Dytch*,
21 2011 WL 839421, at *3. For example, it is unclear what additional facts Illumina contends
22 Defendants should have pleaded for its Sixth Affirmative Defense that statute of limitations applies as
23 a bar to potential liability for past acts. Similarly, it is unclear what additional facts—beyond the 29
24 pages of adequately pleaded inequitable conduct allegations (D.N. 54 at ¶¶ 217-286)—Illumina
25 contends would be required, especially since the standard for unclean hands is lower than the
26 standard for inequitable conduct. *See, e.g., Finjan, Inc. v. Juniper Networks, Inc.*, No. 17-05659-
27 WHA, 2018 WL 4181905, at *6 (N.D. Cal. Aug. 31, 2018) (“The defense of unclean hands is
28 essentially a cousin to inequitable conduct that lowers the materiality threshold on a showing of

1 ‘egregious misconduct’ like perjury or the suppression of evidence.” (internal quotation omitted)).
2 Moreover, it is not for the court to “conduct an analysis of the answer in order to determine which
3 defenses are adequately pled and which are not.” *Perez*, 2015 WL 5567746, at *4. For these reasons
4 alone, Illumina’s motion to strike should be denied.

5 The second fatal flaw in Illumina’s motion to strike is that Illumina does not even argue, let
6 alone make a showing, that it would be prejudiced if the challenged affirmative defenses were
7 maintained. *See, e.g., Smith v. Wal-Mart Stores*, No. 06-2069 SBA, 2006 WL 2711468, at *10 (N.D.
8 Cal. Sep. 20, 2006) (“[T]his Court has held that motions to strike are rarely granted in the absence of
9 a showing of prejudice to the moving party.” (internal quotations omitted)). Nor could Illumina
10 make such an argument. There can be no prejudice or added expense to Illumina because the
11 discovery necessary to prove or disprove the affirmative defenses completely overlaps with the
12 discovery the parties would otherwise have to perform to resolve the merits of Illumina’s claims
13 against Defendants. *See, e.g., Free Speech Sys., LLC v. Menzel*, 390 F. Supp. 3d 1162, 1176 (2019)
14 (denying motion to strike and finding no prejudice where the moving party would “not be required to
15 separately litigate [the affirmative defenses] or to incur additional costs in discovery.”).

16 In sum, Illumina has not met its burden for moving to strike Defendants’ affirmative defenses.
17 However, to simplify the issues in dispute, and based on Illumina’s current infringement allegations,
18 Defendants’ voluntarily dismiss its Fourth and Seventh Affirmative Defense, as discussed below.

19 **B. Defendants Voluntarily Dismiss Their Fourth and Seventh Affirmative Defenses**

20 Defendants’ Fourth Affirmative Defense is prosecution history estoppel, which “is a defense
21 to the doctrine of equivalents, not to direct patent infringement, and it ‘is only applicable where the
22 doctrine of equivalents has been raised as a means of constructing an infringement claim[.]’” *Incase*
23 *Designs, Inc. v. Mophie, Inc.*, No. 13-CV-00602 RS, 2013 WL 12173931, at *2 (N.D. Cal. July 1,
24 2013) (internal citation omitted). Illumina’s First Amended Complaint made vague references to the
25 doctrine of equivalents, but pled no facts in support of such a theory. *See* D.N. 52 at ¶¶ 38, 42, 49,
26 67, 80, 94, 109, 127, 145, 158, 173, 188. Anticipating a doctrine of equivalents theory in Illumina’s
27 Infringement Contentions, Defendants included an affirmative defense of prosecution history estoppel
28 in their Answer. Illumina’s Infringement Contentions, however, did not articulate infringement under

1 the doctrine of equivalents. As such, Defendants voluntarily dismiss their Fourth Affirmative
2 Defense, respectfully requesting leave to amend in the event Illumina later advances a doctrine of
3 equivalents theory. *See Incase*, 2013 WL 12173931, at *2.

4 Similarly, Defendants do not contest dismissal of their Seventh Affirmative Defense—based
5 on the marking provision in 35 U.S.C. § 287—so long as such dismissal is with leave to amend in the
6 event Illumina later asserts patent claims directed to a system or apparatus.

7 **IV. DEFENDANTS’ INDUCED INFRINGEMENT COUNTERCLAIM AND** 8 **WILLFULNESS ALLEGATIONS SHOULD NOT BE DISMISSED**

9 Illumina’s motion to dismiss should be denied if Defendants’ allegations “contain sufficient
10 factual matter, accepted as true, to ‘state a claim to relief that is plausible on its face.’” *Ashcroft v.*
11 *Iqbal*, 556 U.S. 662, 678 (2009) (quoting *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007)). A
12 claim is plausible on its face if it “allows the court to draw the reasonable inference that the
13 [accused] is liable for the misconduct alleged.” *Iqbal*, 556 U.S. at 678. Indeed, “[w]hile a Plaintiff
14 bears the burden of alleging enough facts to state a plausible claim, it need not provide its case at the
15 Rule 12(b)(6) stage or even stake out the probability that it will prevail.” *CAP Co., Ltd. v. McAfee,*
16 *Inc.*, No. 14-cv-05068-JD, 2015 WL 3945875, at *1 (N.D. Cal. June 26, 2015). Here, Defendants
17 have more than sufficiently pleaded induced infringement and willful infringement of the ’984
18 Patent and, thus, Illumina’s motion to dismiss should be denied.

19 **A. Defendants’ Inducement Claim Should Not Be Dismissed**

20 Illumina argues that that “there is no allegation whatsoever regarding the particularized intent
21 required to induce infringement.” D.N. 65 at 21. Illumina appears to require that Defendants’ prove
22 inducement at the pleading stage, but the standard is not so high. In *Nalco*, the Federal Circuit
23 reversed the dismissal of induced infringement claims where the patentee alleged “defendants had
24 knowledge of the [asserted patent] and performed various activity with the specific intent to induce
25 others” to infringe, such as “providing instructions, support, and technical assistance for the use of the
26 [accused product].” *Nalco Co. v. Chem-Mod, LLC*, 883 F.3d 1337, 1355 (Fed. Cir. 2017).

27 Defendants make almost identical allegations here:

28 Illumina actively induced infringement by its customers by . . . *instructing its customers* to
use these products together in an infringing manner, providing qualification of the infringing

1 methods, and **by providing marketing materials, user guides, technical literature, and**
2 **bioinformatics software applications to support its customers' infringing use.** . . . Illumina
3 acted with knowledge that the induced acts constitute infringement or willful blindness with
4 regards to its customers' infringement of the '984 Patent. . . . **with knowledge of the '984**
5 **Patent**, Illumina has and will continue to actively induce others to infringe . . . by, at least,
6 **causing, instructing, urging, encouraging, and/or aiding its customers** to directly infringe.

7 D.N. 54 (¶¶ 69-70, 79) (emphasis added). As Illumina acknowledges, Defendants need only "allege
8 facts that **plausibly support an inference** that [they] specifically intended others to infringe" (D.N. 65
9 at 21 (emphasis added) (citation omitted)), as was alleged here. Nothing more is required.

10 Further instructive is the Federal Circuit's decision in *Lifetime Industries*, cited by Illumina.
11 D.N. 65 at 20 (citing *Lifetime Indus., Inc. v. Trim-Lok, Inc.*, 869 F.3d 1372, 1379 (Fed. Cir. 2017)).
12 In *Lifetime Industries*, the Federal Circuit reversed dismissal of induced infringement claims and
13 determined that intent was adequately pleaded because, "[a]fter [defendant] gained that knowledge
14 [of the asserted patent], [patentee] alleged that it then assisted in or directed the installation of exactly
15 the same type of seal as the one described in the patent." *Lifetime Indus.*, 869 F.3d at 1380. These
16 allegations again mirror those of Defendants' here, demonstrating the sufficiency of such allegations.

17 Illumina also challenges Defendants' allegation of knowledge of the '984 Patent. D.N. 65 at
18 21. While, as discussed below with respect to willful infringement, Defendants adequately pled pre-
19 suit knowledge of the '984 Patent but, contrary to Illumina's arguments, such pre-suit knowledge is
20 not required for induced infringement. *See, e.g., Windy City Innovations, LLC v. Microsoft Corp.*,
21 193 F. Supp. 3d 1109, 1116 (N.D. Cal. 2016) ("to the extent that the complaint alleges claims of
22 induced infringement after the filing of the suit, courts have held that post-suit knowledge is sufficient
23 to sustain a finding that defendant had the requisite knowledge to support claims of indirect
24 infringement."); *Nanosys, Inc. v. QD Vision, Inc.*, No. 16-CV-01957-YGR, 2016 WL 4943006, at *5
25 (N.D. Cal. Sept. 16, 2016) ("[T]o the extent that the FAC alleges claims of induced infringement after
26 the filing of the suit, courts have held that post-suit knowledge is sufficient to sustain a finding that
27 defendant had the requisite knowledge to support claims for induced infringement."). Instead, it is
28 sufficient that Illumina had knowledge of the '984 Patent prior to its acts inducing its customers to
directly infringe the '984 Patent, as alleged here. *See Lifetime Indus.*, 869 F.3d at 1380.

1 **B. Defendants’ Willfulness Allegations Should Not Be Dismissed**

2 Illumina’s motion to dismiss Defendants’ willfulness claim should be denied because Illumina
3 again insists for more detailed factual allegations than required at the pleading stage. To state a claim
4 for willful infringement, Defendants must allege that Illumina (1) knew of Defendants’ patent and
5 (2) then acted or continued to act even though it knew that it was infringing Defendants’ patent or that
6 the risk of such infringement was obvious. *Corephotonics, Ltd. v. Apple, Inc.*, No. 17-cv-06457-
7 LHK, 2018 WL 4772340, at *7 (Oct. 1, 2018) (citing *Arctic Cat Inc. v. Bombardier Recreational*
8 *Prods. Inc.*, 876 F.3d 1350, 1371 (Fed. Cir. 2017)). Indeed, courts in this District require that a
9 patentee “make out the barest factual assertion of knowledge” of the patent. *Finjan, Inc. v. Sophos,*
10 *Inc.*, No. 14-CV-01197-WHO, 2015 WL 7075573, at *3 (N.D. Cal. Nov. 13, 2015) (internal
11 quotations omitted). Defendants’ allegations more than meet this pleadings standard.

12 As shown above, Defendants have plausibly alleged that Illumina’s pre-suit knowledge of the
13 asserted patent. *See, e.g.*, D.N. 54 at ¶ 70 (“On information and belief, Illumina has had knowledge
14 of the ’984 Patent since at least April 17, 2018 (the use date of the ’984 Patent) or shortly thereafter.
15 On information and belief, Illumina is a sophisticated, multinational company that regularly monitors
16 patent issues in related fields. . . .”). Defendants allegations are not based on mere speculation, as
17 Illumina suggests. Defendants are competitors in the same industry and understand how these
18 competitors monitor not only competitor patents, but also products and product literature. Courts in
19 this District routinely deny motions to dismiss for willful infringement where the patentee’s
20 complaint contains similar allegations. *See, e.g., Finjan v. Sophos*, 2015 WL 7075573, at *4 (finding
21 that the plaintiff’s proposed third amended complaint alleged the “barest factual assertion of [presuit]
22 knowledge” from allegations that the defendant “‘knew of, was in possession of, analyzed and had
23 used’ a particular patented technology, and that [the defendant] ‘considered [this technology] to be
24 similar to [its] product,’” and “that the supporting documentation for the technology provided notice
25 of the patents.”); *Avocet Sports Tech., Inc. v. Garmin Intern., Inc.*, No. C 11-04049 JW, 2012 WL
26 2343163, at *2-3 (N.D. Cal. June 5, 2012) (finding “barest factual assertion” of pre-suit knowledge
27 sufficient to plead willful infringement where defendant was alleged to have actual knowledge of
28 patent from participation in the market and discussion of the patented product at trade shows).

Defendants have also plausibly alleged that Illumina continued to act even though it knew that it was infringing or that the risk of infringing was obvious. *See, e.g.*, D.N. 54 at ¶ 70 (“Illumina acted with knowledge that the induced acts constitute infringement or willful blindness with regards to its customers’ infringement of the ’984 Patent.”). These allegations are also sufficient. *See, e.g., Corephotronics*, 2018 WL 4772340 at *10 (denying motion to dismiss where accused infringer was “at least willfully blind to a high risk that it was infringing Corephotronics’ patents.”); *Rearden LLC v. Crystal Dynamics, Inc.*, 286 F. Supp. 3d 1076, 1081 (N.D. Cal. 2018) (citing *Straight Path IP Grp, Inc. v. Apple Inc.*, No. 16-03582-WHA, 2017 WL 3967864, at *4 (N.D. Cal. Sept. 9, 2017) (“[Plaintiff] points out that it ‘alleges that [defendant] was aware of four of the asserted patents and their infringement since at least September 24, 2014, and that [defendant] nonetheless continued to sell the accused products and induce infringement by its customers after that date.’”)).

V. LEAVE TO AMEND SHOULD BE LIBERALLY GRANTED

“[I]n dismissing for failure to state a claim under Rule 12(b)(6), ‘a district court should grant leave to amend . . . unless it determines that the pleading could not possibly be cured by the allegation of other facts.’ *Abaxis, Inc. v. Cepheid*, No. 10-cv-2840-LHK, 2011 WL 1044396, at *4 (N.D. Cal. Mar. 22, 2011) (quoting *Lopez v. Smith*, 203 F.3d 1122, 1127 (9th Cir. 2000)). “[L]eave to amend should be freely given when doing so would not cause prejudice to the opposing party.” *Barnes*, 718 F. Supp. 2d at 1170; *see also Hernandez v. Cnty. of Monterey*, 306 F.R.D. 279, 293 & n.98 (N.D. Cal. 2015).

While, as discussed above, Defendants submit that their remaining affirmative defenses and counterclaims are legally sufficient as pled, the Court should grant Defendants leave to amend if it is inclined to grant any part of Illumina’s Motion to Strike or Dismiss. Leave to amend would allow Defendants the opportunity to plead additional facts while not prejudicing Illumina.

VI. CONCLUSION

For the reasons set forth above, Illumina’s motion to strike and dismiss should be denied. Alternatively, because leave to amend is liberally granted, if the Court were to agree with Illumina as to any of its arguments, Defendants should be granted leave to amend.

1 Dated: November 18, 2019

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2
3 By: /s/ Katie J.L. Scott

Katie J.L. Scott

4 Attorney for Defendants
5 BGI AMERICAS CORP., MGI TECH CO.,
6 LTD., MGI AMERICAS, INC., AND
7 COMPLETE GENOMICS INC.
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